

KITIMAT 2004 NORTHERN BC WINTER GAMES

ECONOMIC IMPACT ANALYSIS

KITIMAT 2004 NORTHERN BC WINTER GAMES ECONOMIC IMPACT ANALYSIS

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1.0 INTRODUCTION

1.1 BACKGROUND

Kitimat hosted the 2004 Northern BC Winter Games from February 6 to 8, 2004. The Games took place from Friday to Sunday, and included 17 events held in 12 separate venues. The Games involved over 1,500 participants from the seven Northern B.C. sport zones. Kitimat provided over 1,000 local volunteers who assisted in administration of the Games. Numerous businesses and agencies in the community also donated a great deal of in-kind support to the Games.

Hosting a BC Games produces a surge of economic activity in the host community. This impact is created through spending by the local Games organization and by the BC Games Society, and by spending by participants, spectators and volunteers. The Northern BC Winter Games Society, was interested in quantifying the economic impact created by the Games, and retained the Economic Planning Group to conduct the analysis.

1.2 OBJECTIVES

The purpose of this study was to estimate the economic impact of the Kitimat 2004 Northern BC Winter Games on the community of Kitimat. Economic impact was measured by calculating direct spending in the local area. Impacts were estimated by local spending of the:

- Kitimat 2004 Northern BC Winter Games Society
- BC Games Society
- Athletes/Competitors
- Spectators
- Volunteers

1.3 METHODOLOGY

Two methods were used to collect economic impact information and the resulting findings are additive creating a spending total. The two techniques are described below.

• Participant Spending

This spending analysis technique involves collecting information on individuals within the three participant categories who spent money in the community as a result of their involvement in the Games. These individuals included the athletes/competitors,

spectators and volunteers. A sample of individuals from each of these categories was interviewed about their Games related spending.

The Snow Valley Nordic Ski Club was retained to conduct the interviews. The club members met with the manager of the Economic Planning Group on the Saturday morning of the Games where the purpose of the analysis was explained and the questionnaires reviewed. Instructions were also provided on respondent selection and interviewing procedures. Each person was also given clipboards and questionnaires to record the interview results for a sample of participants, spectators and volunteers.

Completed questionnaires were collected and edited. The spectator turnover ratios were calculated and the sport zones coded. Each questionnaire was numbered and the information entered into *SurveyIt*, a survey analysis software package. Frequency distributions and averages were produced for each question for each of the three categories of respondents.

- **Games Society Spending**

This category involved recording the local expenditures made by the two organizing societies involved with the Games - the Kitimat 2004 Northern BC Winter Games Society and the BC Games Society. This procedure was designed to capture all local spending by representatives of these administrative bodies, related to the hosting of the Games. These figures were accessed from the society representatives using a February 29, 2004 cut-off date. In cases where spending occurred outside the Kitimat area (such as purchases of materials from outside suppliers), these amounts were not included.

2.0 PARTICIPANT EXPENDITURES

2.1 ANALYSIS METHOD

The number of persons participating in the Games was obtained from the Games organizers. Total spending was estimated by interviewing a sample of these participants and asking them about their Games related expenditures. In order to capture a representative samples of participants, interviewers were stationed at most of the sport venues. (It is noted that two of the smaller events were not covered, namely Carpet Bowling and Bridge.) A total of 160 questionnaires were completed, representing just over 12% of the participants.

Average spending was calculated from this participant survey sample and was multiplied by the total number of participants to obtain total spending. A total of 1,571 individuals participated in the Games. The distribution of participants by sport is tabulated in Table 2-1. A listing of the number of participants by sport zone is tabulated in Table 2-2.

Table 2-1
List of Sports Participants and Venues

Sport/Activity	Athletes	Others	Total	Venue
Badminton	69	4	73	St. Anthony's Elementary School
Basketball	70	14	84	Kitimaat Village Recreation Centre
Bowling	51	10	61	KD Lanes Bowling Alley
Bowling Special O	25	9	34	KD Lanes Bowling Alley
Bridge	32	-	32	Riverlodge
Carpet Bowls	17	-	17	Nechako School
Curling	41	31	72	Hirsch Creek Golf and Winter Club
Curling Special O	22	7	29	Hirsch Creek Golf and Winter Club
Figure Skating	107	7	123	Tamitik Ice Arena
Gymnastics	75	29	102	Mt. Elizabeth Secondary School
Hockey - Boys	135	40	175	Kitimat Ice Arena
Hockey - Girls	81	20	101	Tamitik Ice Arena
Judo	29	17	46	Roy Wilcox Elementary School
Karate	76	20	96	Riverlodge
Soccer (Boys)	43	7	50	Kildala Elementary School
Soccer (Girls)	40	9	49	Kildala Elementary School
Swimming	83	19	102	Sam Lindsay Memorial Pool
Swimming Special O	9	3	12	Sam Lindsay Memorial Pool
Tae Kwon do	50	11	61	Riverlodge
Volleyball	75	18	93	Mt. Elizabeth Secondary School
Wrestling	<u>105</u>	<u>19</u>	<u>124</u>	Riverlodge
Totals	1,234	294	1,536	

Source: Kitimat 2004 Northern BC Winter Games Society (February 6, 2004)

**Table 2-2
Number of Participants by Sport Zone**

Sport	A	B	C	D	E	F	G	H	Total
Badminton	-	11	10	20	10	12	-	10	73
Basketball	-	14	13	13	14	14	-	16	84
Bowling	5	-	9	10	5	9	-	23	61
Bowling Special O	-	-	7	7	7	7	-	6	34
Bridge	-	4	10	-	4	-	-	14	32
Carpet Bowls	-	-	-	-	-	5	4	8	17
Curling	10	12	10	-	5	4	-	31	72
Curling Special O	-	-	7	6	5	11	-	-	29
Figure Skating	10	22	30	23		10		28	123
Gymnastics		13	29	30		19		11	102
Hockey - Boys	19	22	20	20	20	20	22	32	175
Hockey - Girls	20	20	18	-	18	-	-	25	101
Judo	11	-	2	28	-	-	-	5	46
Karate	8	13	14	29	8	-	-	24	96
Soccer (Boys)	1	-	-	12	-	12	13	12	50
Soccer (Girls)	-	-	12	11	-	12	-	14	49
Swimming	8	15	12	13	15	9	-	30	102
Swimming Special O	-	-	-	9	3	-	-	-	12
Tae Kwon do	8	-	-	20	12	-	-	21	61
Volleyball	13	18	11	9	13	13	-	16	93
Wrestling	20	10	34	38	14	3	-	5	124
Total	133	174	248	298	153	160	39	331	1,536

Source: Kitimat 2004 Northern BC Winter Games Society

Notes:

1. Participants include athletes, coaches, managers, officials and chaperones.
2. Totals include all categories for each event except where tallied separately (boys and girls) for the larger events (i.e., hockey and soccer).
3. Total participants included 1,229 competitors, 135 coaches, 23 managers, 125 officials, and 20 chaperones.

The geographic zones referred to above are as follows:

<u>Zone</u>	<u>Area</u>	<u>Zone</u>	<u>Area</u>
A	Peace River-Rock Mountain	E	North Coast
B	Kitimat-Stikine	F	Cariboo
C	Bulkley-Nechako	G	Queen Charlotte Is.-N. Rockies
D	Fraser-Fort George	H	Host Community

2.2 PARTICIPANT CHARACTERISTICS

- **Distribution of Participants**

Nearly nine out of ten participants interviewed (86%), were from outside Kitimat, and the distribution of the participants - and the number and percent interviewed - was as follows:

Table 2-3
Participants Interviewed by Sport Zone

Zone	Name	Number Interviewed	% of Total Interviewed	Total Participants
A	Peace River-Rock Mountain	22	16%	133
B	Kitimat-Stikine	28	16%	174
C	Bulkley-Nechako	27	11%	248
D	Fraser-Fort George	38	13%	298
E	North Coast	11	7%	153
F	Cariboo	9	5%	160
G	Queen Charlotte Is.-N. Rockies	1	2%	39
H	Host Community	1	<1%	351
Total		160	100%	1,536

Source: Kitimat 2004 BC Games Society and EPG survey results

- **Participants Interviewed by Sport**

Participants from most sports were interviewed (at 12 of the 16 venues). Table 2-4 depicts the distribution of persons interviewed by sport.

Table 2-4
Participants Interviewed by Event

Sport/Activity	Number Interviewed	Participants
Badminton	11	73
Basketball	9	84
Bowling	-	61
Bridge	-	32
Carpet Bowls	-	17
Curling	8	72
Gymnastics	-	102
Hockey	13	276
Judo	6	46
Karate	10	96
Skating	19	123
Swimming	16	102
Soccer	20	99
Tae Kwon do	8	61

Volleyball	17	93
Wrestling	4	124
Special O (Bowling, Curling, Swimming)	-	75
Total	160	1,536

Source: EPG survey results

Most persons interviewed (81%), were taking part in the Games as competitors. Another 9% were coaches, 9% as officials, and the remaining 1% either as managers or chaperones.

Most participants (93%) were staying in Kitimat for the entire duration of the Games (i.e., either 3 or 4 days). The average length of stay was 3.0 days. (Although the Games officially lasted three days, some competitors arrived the day before the Games began.)

Nearly all respondents (86%) said they attended the Opening Ceremonies.

More than half of participants (60%), had friends or relatives come to the event to watch them perform. The average number of spectating friends and relatives per participant was 2.2. It is noted that many of these spectators were watching more than one competitor, so the participant related totals are not additive. Distribution of the number of spectators watching friends and relatives compete is as follows:

- None 40%
- 1 spectator 11%
- 2 spectators 18%
- 3 spectators 6%
- 4 - 5 spectators 8%
- 6 - 9 spectators 7%
- 10 or more spectators 10%

2.3 PARTICIPANT EXPENDITURES

- **Expenditures by Category**

Nearly all participants (96%) said they would be spending some money while participating in the Games. Most participants indicated that these expenditures covered only their own spending, while the remainder indicated that their expenditures covered persons in addition to themselves ranging from two to five persons. For analytical purposes, all expenditures have been converted to per-person totals.

Table 2-5 illustrates the distribution of expenditures by item and by expenditure category, by percentage. Average expenditures by category are also tallied.

Table 2-5
Participant Expenditures by Category

Category	Percentage by Expenditure Group												Avg. Exp.
	\$0	\$1-10	\$11-20	\$21-30	\$31-40	\$41-50	\$51-60	\$61-70	\$71-80	\$81-90	\$91-100	\$101+	
Accom.	89.1	0	1.9	0.6	0	1.9	0	0	1.3	0.6	0.6	3.8	\$11.28
Automobile	84.6	3.8	3.8	1.9	1.3	3.8	0	0	0	0	0.6	0	\$4.63
Concession	26.9	46.8	14.1	4.5	3.8	2.6	0	0	0.6	0	0	0.6	\$10.88
Gifts	50.0	14.7	12.2	6.4	4.5	7.1	1.9	0.6	1.9	0	0	0.6	\$14.18
Local Trans.	94.2	0.6	1.9	0	1.3	1.3	0	0	0.6	0	0	0	\$1.96
Groceries	75.0	14.1	5.1	2.6	0.6	1.3	0	0	0	0	0.6	0.6	\$4.85
Restaurant	31.4	19.2	21.8	11.5	4.5	3.2	1.9	0	1.3	0	3.2	1.9	\$19.22
Rec./Ent.	80.8	10.3	5.1	0.6	1.9	1.3	0	0	0	0	0	0	\$3.48
Shopping	70.5	10.9	7.1	3.2	3.2	3.2	0	0	0.6	0	1.3	0	\$7.46
Other	95.5	1.3	1.3	0.6	0	0	0	0	0.6	0.6	0	0	\$1.50
Total	4.5	9.6	10.3	13.5	10.3	10.3	5.1	3.2	4.5	0.6	5.1	23.1	\$78.13

Source: Interviews with 160 Games participants.

Notes:

1. Figures are row percentages (i.e., they add to 100% horizontally).
2. Numbers in the Average Expenditure column are the average dollar amounts spent in each expenditure category.

The average amount of money spent per person was **\$78.13**. Average spending ranged from a few dollars to several hundreds of dollars, with non-local residents spending approximately 25% more than local residents. The distribution between local residents and non-local residents is as follows:

- Average expenditures for non-local residents \$80.21
- Average expenditure for local residents \$65.95

- **Total Expenditures**

The total amount of money spent by participants was estimated to be **\$120,000**, calculated as follows:

– Average expenditure per person	\$78.13
Times	x
– Number of participants	<u>1,536</u>
Equals	=
– Total participant spending	\$120,000

Participants spent money across a number of expenditure categories as illustrated in Table 2-6. Distribution of the \$120,000 spending was as follows:

Table 2-6
Distribution of Participant Expenditures

Expenditure Category	Percent Distribution	Expenditure by Category
Accommodation	0.14	\$17,325
Automobile	0.06	\$7,111
Concession	0.14	\$16,711
Gifts and Souvenirs	0.18	\$21,779
Local Transportation	0.03	\$3,010
Groceries	0.06	\$7,449
Restaurant Meals	0.25	\$29,520
Recreation/Entertainment	0.04	\$5,345
Retail Shopping	0.10	\$11,458
Other	0.02	\$2,304
Total	100%	\$120,000

3.0 SPECTATOR EXPENDITURES

3.1 ANALYSIS METHOD

To calculate spectator spending, the total number of spectators was multiplied by the average spending per spectator. Average spending was obtained from interviews with a sample of spectators. A total of 154 spectators were interviewed at most of the sport venues. A count of spectators interviewed by sport venue has not been prepared as many of the sports were held in common venues. These included:

- Riverlodge Bridge, Karate, Tae Kwon Do and Wrestling
- Tamitik Ice Arena Hockey and Figure Skating
- Mt. Elizabeth School Gymnastics and Karate

In these instances, interviews were conducted in the common areas between the rooms where the events were taking place. This situation did not allow the link to be made between the individual sport and the venue.

Since tickets are not sold for events, and attendance counts are not taken, a method was needed to calculate the total number of spectators. This spectator count needed to estimate the number of unique individuals so as to avoid double counting those persons who attended more than one event. Two methods have been employed. One approach uses a spectator turnover ratio. The other method uses information on the proportion of spectators who came to watch friends or relatives. These two techniques are explained below.

3.1.1 Spectator Turn-over Ratio Approach

The total number of spectators is the quotient of the peak number of spectators at each venue divided by the spectator turnover ratio. This is represented by the formula:

Number of Unique Spectators = Peak Number of Spectators / Spectator Turn-Over Ratio

where: Spectator Turnover Ratio = No. of different events / No. of days

The peak number of spectators at each venue was determined by periodic counts over the course of the Games. Input to this peak at-one-time spectator count estimate was also provided by the venue hosts and sport chairpersons. It is noted that this figure represented the estimated number of dedicated spectators and not athletes who were

watching other competitors. The figure is designed to represent the best estimate of the at-one-time peak attendance.

The spectator turnover ratio is intended to eliminate double counting (i.e., counting the same person at more than one event). This ratio was determined by asking spectators about the number of events they were watching and the number of days they were at the Games. The turnover ratio became the quotient of the number of events (different sports) attended divided by the number of days at the Games. By definition, this index must be equal to or greater than one.

The turnover ratio, generated from the sample of spectators interviewed, was applied to the sum of the peak spectator count for each venue. This approach produced an estimate of the total number of unique spectators who attended events at the Kitimat 2004 Games.

3.1.2 Participant Induced Spectator Approach

The total number of spectators at the Games can also be defined as the number who came to watch friends and relatives, plus those who did not. This relationship is represented by the formula:

$$\text{Total Spectators} = \text{Participant Induced} + \text{Non-Participant Induced}$$

The participant induced spectators can be calculated from information contained in the Spectator and Participant questionnaires. Question 6 on the Spectator questionnaire records the number of persons who attended the Games to watch their friends or relatives compete.

Question 6 of the Participant survey indicates the number of persons who came to watch them compete. Multiplying the average number of spectators per participant times the registered number of participants, and dividing by the average number of participants per spectator equals the number of Participant Induced Spectators.

The ratio of the number of participant induced (yes to questions 6) versus non-participant induced spectators (no to question 6) is known. Applying these ratios against the estimated number of Participant Induced Spectators allows the total number of spectators to be calculated.

3.2 SPECTATOR COUNTS

- Counted Number of Spectators

The peak number of spectators who attended each venue is illustrated below. As noted, these estimates were made by periodic counts and by estimates of the sport chairpersons.

Table 3-1
Peak Spectator Counts by Venue

Sport/Activity	Participants	Spectators
Badminton	73	20
Basketball	84	100
Bowling	61	20
Bridge	32	10
Carpet Bowls	17	30
Curling	72	40
Gymnastics	102	200
Hockey	276	500
Judo	46	30
Karate	96	100
Skating	123	300
Swimming	102	200
Soccer	99	50
Tae Kwon do	61	30
Volleyball	93	80
Wrestling	124	50
Special O (Bowling, Curling, Swimming)	75	30
Total	1,536	1,790

Source: Kitimat 2004 Northern BC Winter Games Society for participants, plus personal counts and estimates by venue chairmen for spectators.

The total peak spectator count was 1,790. The calculated spectator turnover ratio was 1.73, or expressed differently, each spectator attended 1.73 different events.

Consequently, the total number of unique individual spectators was estimated to be **1,035** (i.e., $1,790 / 1.73 = 1,035$).

- **Calculated Number of Spectators**

The participant induced spectator count procedure produced a virtually identical estimate of 1,043, comprised of 751 participant induced and 292 non-spectator induced spectators. This total was based on the following information:

- 2.2 spectators per participant (Question 6 - Participant Survey)
- 4.5 participants per spectator (Question 6 - Spectator Survey)
- 72% of spectators were participant induced (Question 6 - Spectator Survey)

where the number of participant induced spectators is:

$$(2.2) (1536) / 4.5 = 751$$

and, the number of non-participant induced spectators is:

participant induced is 72% or 751
 non-participant induced is 28% or 292, therefore
 100% (participant plus non-participant induced spectators) = **1,043**

3.3 SPECTATOR CHARACTERISTICS

- **Spectator Residence**

A little over half of spectators interviewed (57%), were from Kitimat. The non-local spectators interviewed came from the seven Northern BC sport zones, as described below.

Table 3-2
Spectators Interviewed by Sport Zone

Zone	Name	Spectators Interviewed	Percent
A	Peace River-Rocky Mountains	5	3%
B	Kitimat-Stikine	17	11%
C	Bulkley-Nechako	19	12%
D	Fraser-Fort George	9	6%
E	North Coast	7	4%
F	Cariboo	5	3%
G	Queen Charlotte Is.-N. Rockies	4	3%
H	Host Community	88	57%
Total		154	100%

Source: EPG Survey of Spectators

- **Duration of Stay**

The Games were the main reason for virtually all (98%) of the non-local spectators visiting Kitimat. One half of the spectators (48%) were attending the Games for three days, and 31% were attending the Games for two days. The average length of stay in Kitimat was 2.5 days. The distribution of length of stay was as follows:

– 1 day	13%
– 2 days	31%
– 3 days	48%
– 4 days +	8%

Nearly two-thirds of the spectators attended the Opening Ceremonies (63%). Nearly three-quarters of spectators (73%) were attending the Games to watch a friend or relative compete. The average number of persons they were watching was 4.5 persons.

The average size of the spectator parties was 3.5 persons, and the distribution of spectator party size was as follows:

– 1 spectator	15%
– 2 spectators	30%
– 3 spectators	16%
– 4 spectators	16%
– 5+ spectators	23%

3.4 SPECTATOR EXPENDITURES

- **Distribution of Expenditures**

Most spectators (86%) spent money on goods and/or services while attending the Games. The following chart indicates the distribution of per person spending on a variety of categories.

**Table 3-3
Spectator Expenditures by Category**

Category	Percentage by Expenditure Group												Avg. Exp.
	\$0	\$1-10	\$11-20	\$21-30	\$31-40	\$41-50	\$51-60	\$61-70	\$71-80	\$81-90	\$91-100	\$101+	
Accom.	81.8	0.7	0	0.7	0.7	0.7	0.7	3.4	2.7	0	2.7	6.1	\$17.34
Automobile	61.9	13.6	11.6	4.8	0	2.7	1.4	0.7	2.0	0	0	1.4	\$11.18
Concession	36.7	44.2	12.9	2.7	0.7	1.4	0.7	0	0	0	0	0.7	\$10.47
Gifts	61.5	13.5	8.8	6.1	2.0	3.4	0	0.7	2.7	0	0.7	0.7	\$10.53
Local Trans.	92.6	4.7	1.4	1.4	0	0	0	0	0	0	0	0	\$0.72
Groceries	73.8	10.1	8.7	1.3	0	2.7	0	0	0.7	0	1.3	1.3	\$8.58
Restaurant	52.7	8.7	15.3	8.0	2.7	2.7	2.0	0	1.3	0	3.3	3.3	\$19.55
Rec./Ent.	89.9	4.7	2.0	0.7	0.7	0.7	0	0	0.7	0	0	0.7	\$3.22
Shopping	75.2	6.7	8.1	2.0	0.7	4.0	0	0	0.7	0	0.7	2.0	\$10.12
Other	95.3		1.3	0.7	0.7	0.7	0	0	0	0	0	0.7	\$1.77
Total	13.5	12.8	10.8	10.8	4.1	4.7	6.8	2.7	4.7	3.4	1.4	24.3	\$90.16

Source: Interviews with 154 Games spectators

Notes:

1. Figures are row percentages (i.e., they add to 100% horizontally).
2. Numbers in the Average Expenditure column are the average dollar amounts spent in each expenditure category.

Spectators attending the Games had an average expenditure of **\$90.16** during their stay in Kitimat. This figure is based on the following averages of locals and non-locals:

- Average spending by non-local residents \$120.00 (estimate)
- Average spending by local residents \$70.40

Applying the average expenditures to the total number of spectators results in a spectator spending total of **\$94,000** (i.e., \$90.16 x 1,039). This is based on the average of the two spectator counts, as follows:

- Spectator Turn-Over Technique 1,035
 - Participant Induced Technique 1,043
- 2,078/2 = **1,039** (approx.)

- **Distribution of Spectator Spending**

Spectator spending occurred in a number of categories. Distribution of the \$94,000 total was calculated as follows.

Table 3-4
Distribution of Spectator Expenditures

Expenditure Category	Percent Distribution	Expenditure by Category
Accommodation	0.19	\$18,079
Automobile	0.12	\$11,656
Concession	0.12	\$10,916
Gifts and Souvenirs	0.12	\$10,978
Local Transportation	0.01	\$751
Groceries	0.10	\$8,945
Restaurant Meals	0.22	\$20,383
Recreation/Entertainment	0.04	\$3,357
Retail Shopping	0.11	\$10,551
Other	0.02	\$1,845
Total	100%	\$94,000

4.0 VOLUNTEER EXPENDITURES

4.1 ANALYSIS METHOD

As with participants and spectators, volunteers were asked about their Games participation and related spending. A total of 1,067 volunteers were registered and assisted with administration of the Games (Source: BC Games Society). Approximately 15% or 141 were interviewed at a variety of venues.

Volunteers were asked about the volunteer category in which they were working, the number of days they would be volunteering, whether they had any friends or relatives attending the Games, and their spending. Average spending per person was multiplied by the total number of volunteers to estimate total spending by all volunteers.

4.2 VOLUNTEER CHARACTERISTICS

Volunteers were involved in the Games in a number of different capacities. The distribution of persons interviewed was as follows:

Table 4-1
Volunteers Interviewed by Category

Category	Number Interviewed	Percent Interviewed
Accommodation	7	5%
Communications	4	3%
Finance and Administration	5	4%
Fundraising	6	4%
Medical	7	5%
Public Relations	8	6%
Security	17	12%
Social	10	7%
Sports	32	23%
Transportation	13	9%
Volunteers	14	10%
Others	18	13%
Total	141	100%

Source: 141 individual volunteers interviewed at various venues.

More than two thirds of the volunteers were working at the Games for three days or more, while the average duration was 2.5 days. The distribution was as follows:

- one day 14%
- two days 18%
- three days + 68%

Nearly six out of ten (58%) were a friend or relative of a Games participant.

4.3 VOLUNTEER EXPENDITURES

- **Volunteer Spending Ranges**

Most volunteers (over 95%) bought some goods and/or services while assisting with the Games. Table 4-2 illustrates the distribution of expenditures in percentages, by category.

Table 4-2
Volunteer Expenditures by Category

Category	Percentage by Expenditure Group												Avg. Exp.
	\$0	\$1-10	\$11-20	\$21-30	\$31-40	\$41-50	\$51-60	\$61-70	\$71-80	\$81-90	\$91-100	\$101+	
Accom.	97.9	0	0	0	0	0	0	0	0	0	0	2.1	\$3.12
Automobile	65.1	10.6	12.8	3.5	2.1	0.7	0.7	1.4	1.4	0	0.7	0.7	\$9.73
Concession	30.5	26.2	25.5	9.9	3.5	4.3	0	0	0	0	0	0	\$13.06
Gifts	56.0	3.5	14.2	11.3	4.3	0	4.3	0.7	0	0	4.3	1.4	\$18.32
Local Trans.	95.7	2.1	1.4	0	0.7	0	0	0	0	0	0	0	\$0.74
Groceries	64.5	0	1.4	2.1	0	5.7	2.8	0	2.1	1.4	7.8	12.1	\$37.55
Restaurant	65.2	4.3	6.4	7.8	5	2.8	0.7	0	1.4	0	4.3	2.1	\$17.89
Rec./Ent.	82.3	4.3	6.4	2.8	1.4	1.4	0	0	0.7	0	0.7	0	\$4.74
Shopping	77.9	4.3	6.4	2.9	2.9	2.9	2.1	0	0	0	0.7	0	\$6.91
Other	98.6	0	0	0	0	0.7	0	0	0	0	0.7	0	\$1.06
Total	5.0	6.4	9.2	7.1	5.0	2.8	5.7	2.8	7.8	3.5	5.7	39.0	\$117.84

Source: Survey of 141 volunteers.

Notes:

1. Figures are row percentages (i.e., they add to 100% horizontally).
2. Numbers in the Average Expenditure column are the average dollar amounts spent in each expenditure category.

The average expenditure by each Volunteer over the duration of the Games was \$117.84.

The total expenditure of the 1,067 volunteers was **\$126,000** (i.e., \$117.84 x 1,067).

- **Distribution of Volunteer Spending**

Spectator spending occurred in a number of categories. Distribution of the \$126,000 total is calculated as follows:

Table 4-3
Distribution of Spectator Expenditures

Expenditure Category	Percent Distribution	Expenditure by Category
Accommodation	0.03	\$3,336
Automobile	0.08	\$10,404
Concession	0.11	\$13,964
Gifts and Souvenirs	0.16	\$19,589
Local Transportation	0.01	\$791
Groceries	0.32	\$40,150
Restaurant Meals	0.15	\$19,129
Recreation/Entertainment	0.04	\$5,068
Retail Shopping	0.06	\$7,388
Other	0.01	\$1,133
Total	100%	\$126,000

5.0 GAMES SOCIETY EXPENDITURES

5.1 KITIMAT 2004 NORTHERN BC WINTER GAMES SOCIETY

- **Games Revenue**

The Kitimat 2004 Northern BC Winter Games Society was responsible for organizing and staging the Games. The Society had a budget of approximately \$200,000 to host the Games (Source: 2004 Kitimat Northern BC Winter Games Society, Income Statement projection as of January 31, 2004). Revenues were categorized as follows:

– Government Funding	\$165,000
– Commercial Funding	\$6,000
– Cash Donations	<u>\$36,000</u>
Total Fundraising	\$207,000

- **Expenditure Breakdown**

The spending of this money to purchase goods and services had an impact on the local economy since a significant proportion was spent in Kitimat. The following is the expenditure allocation by category.

– Volunteers	\$5,000
– Accommodation	\$25,000
– Fundraising	\$12,000
– Medical	\$2,000
– Security	\$2,000
– Sports	\$63,000
– Finance and Administration	\$44,000
– Communications	\$8,000
– Transportation	\$12,000
– Public Relations	\$17,000
– Social	<u>\$13,000</u>
Expense Total	\$203,000

- **Donations in kind Expenditure Breakdown**

In addition to cash expenditures by the organizing society, an almost equal amount of “in-kind” assistance was provided by local merchants, clubs, agencies and individuals. This donations-in-kind total was estimated at \$190,000. These donations occurred in all expenditure categories as indicated below.

– Volunteers	\$5,000
– Accommodation	\$14,000
– Fundraising	\$4,000
– Medical	\$1,000
– Security	\$7,000
– Sports	\$11,000
– Finance and Administration	\$59,000
– Communications	\$2,000
– Transportation	\$2,000
– Public Relations	\$68,000
– Social	<u>\$17,000</u>
In-Kind Expense Total	\$190,000

Although these in-kind contributions are real and represent an important contribution to the Games effort, since they are not cash, they have not been included in the economic impact total.

5.2 BC GAMES SOCIETIES

- **Northern BC Winter Games Society**

Members of the Northern BC Winter Games Society board members incurred costs visiting Kitimat during the planning phase and during the Games themselves. These expenditures totalled just under \$6,000 and included travel expenses for meals and accommodation for board members.

- **BC Games Society**

BC Games Society expenditures included travel costs of various society representatives to visit Kitimat as part of their assistance to the Games organizers. Information supplied by BC Games indicated several person-trips had been made to Kitimat, prior to and during the Games. These included expenditures for accommodations, meals, vehicle rentals (Terrace), and miscellaneous costs, and totalled \$7,000.

- **Total Games' Societies Expenditures**

Northern BC Winter Games Society	\$6,000
BC Games Society	<u>\$7,000</u>
	\$13,000

6.0 CONCLUSIONS

The Kitimat 2004 Northern BC Winter Games created direct economic impact in Kitimat of \$556,000. Over 60% of this impact was created by the spending of Games participants, while 40% was contributed by Games Society organizers.

Direct spending within these two categories was as follows:

Spending by participants	\$340,000
Spending by organizers	<u>\$216,000</u>
Total	\$556,000

Direct spending by Games participants was as follows:

Athletes/Competitors	\$120,000
Spectators	\$94,000
Volunteers	<u>\$126,000</u>
Total	\$340,000

Direct spending in Kitimat by Games organizers was as follows:

Kitimat 2000 BC Winter Games Society	\$203,000
BC Games Society	<u>\$13,000</u>
Total	\$216,000

A range of retail and service sector businesses benefited from the spending of Games participants. The largest beneficiaries were restaurants (\$69,000), grocery stores (\$56,500), and gift/souvenirs stores (\$52,000). The summary of expenditures by sector and by type of participant is as follows:

Sector	Athletes	Spectators	Volunteers	Total
Accommodation	\$17,325	\$18,079	\$3,336	\$38,740
Automobile	\$7,111	\$11,656	\$10,404	\$29,171
Concession	\$16,711	\$10,916	\$13,964	\$41,591
Gifts	\$21,779	\$10,978	\$19,589	\$52,346
Local Transportation	\$3,010	\$751	\$791	\$4,552
Groceries	\$7,449	\$8,945	\$40,150	\$56,545
Restaurant	\$29,520	\$20,383	\$19,129	\$69,032
Rec./Entertainment	\$5,345	\$3,357	\$5,068	\$13,770
Shopping	\$11,458	\$10,551	\$7,388	\$29,397
Other	\$2,304	\$1,845	\$1,133	\$5,283
Total	\$120,000	\$94,000	\$126,000	\$340,000

Spending by Games participants occurred over the three to four days of the Games during the first week of February. Spending by the Games organizers occurred over a longer period of time - prior to, during, and after the Games.

The demand survey technique used to measure the economic impact of the Games provided a defensible analysis process. Based on the survey sample sizes, the results are considered accurate to within +/- 5% for the overall survey and +/- 8% for each of the participant, spectator and volunteer surveys.

It is noted that the analysis focused entirely on direct spending. Additional indirect and induced effects would have been triggered by this direct spending. These impacts were not measured but would have increased the overall economic impact slightly. Furthermore, because they were not cash transactions, in-kind assistance was not included in this economic impact analysis although they represented a valuable contribution to the Games.

APPENDIX

APPENDICES

A QUESTIONNAIRES

B INTERVIEWER INSTRUCTIONS

APPENDIX

APPENDIX A

QUESTIONNAIRES

PARTICIPANT

SPECTATOR

VOLUNTEER

KITIMAT 2004 NORTHERN BC WINTER GAMES

SPECTATOR SURVEY

Activity_____	Location_____	Fri.	Sat.	Sun.	[No.____]
---------------	---------------	------	------	------	-----------

- Do you live in Kitimat? Yes (GO TO #4) No
- If no, where is your home? (Community)_____
- Are the Winter Games your prime reason for visiting the area today?
Yes No Not sure/Don't know
- How many days will you be spending at these Games? _____days
- Which sports/events/activities have you attended or will you be attending?

Friday	1_____	2_____	3_____
Saturday	1_____	2_____	3_____
Sunday	1_____	2_____	3_____
Opening Ceremony	Y / N	Closing Ceremony	Y / N / DK
- Have you come to watch friends or relatives? Yes How many?_____
No
- How many people, including yourself, are in your spectator party? _____
- Have you, or will you be, purchasing any goods or services while either visiting the area or attending the Games? Yes No
- How much do you estimate you **and your party** will spend in total **in the area** during the Games on the following items? (*Enter amounts to nearest dollar.*)
How many persons are covered by the expenditures? _____ persons.

Accommodation	\$_____	Groceries	\$_____
Automobile and Gas	\$_____	Restaurant Meals	\$_____
Concession	\$_____	Recreation/Entertainment	\$_____
Gifts and Souvenirs	\$_____	Retail Shopping	\$_____
Local Transportation	\$_____	Other _____	\$_____
		Total	\$_____

Thank you for your assistance!

APPENDIX

KITIMAT 2004 NORTHERN BC WINTER GAMES

PARTICIPANT SURVEY

Activity_____	Location_____	Fri.	Sat.	Sun.	[No.____]
---------------	---------------	------	------	------	-----------

1. Do you live in Kitimat? Yes (GO TO #4) No
2. If no, where is your home? (Community)_____ [Sport Zone_____]
3. How many days in total will you be spending in the area as a result of attending these Games? _____days
4. Which sports/events/activities have you attended or will you be attending?

Friday	1_____	2_____	3_____
Saturday	1_____	2_____	3_____
Sunday	1_____	2_____	3_____
Opening Ceremony	Y / N	Closing Ceremony	Y / N / DK

5. In what capacity are you taking part?
Participant Official Coach Other _____
6. Have friends or relatives come to the Games to watch you? Yes How many?_____ No
7. Have you purchased, or will you be purchasing, any goods or services while either visiting the area or attending the Games? Yes No
8. How much do you estimate you **and your party** will spend in total **in the area** during the Games on the following items? (*Enter amounts to nearest dollar.*)
How many persons are covered by the expenditures? _____ persons.

Accommodation	\$_____	Groceries	\$_____
Automobile and Gas	\$_____	Restaurant Meals	\$_____
Concession	\$_____	Recreation/Entertainment	\$_____
Gifts and Souvenirs	\$_____	Retail Shopping	\$_____
Local Transportation	\$_____	Other _____	\$_____
		Total	\$_____

Thank you for your assistance!

KITIMAT 2004 NORTHERN BC WINTER GAMES

VOLUNTEER SURVEY

Activity_____	Location_____	Thur.	Fri.	Sat.	[No.____]
---------------	---------------	-------	------	------	-----------

1. In which volunteer capacity are you working?

- | | |
|-----------------------------|----------------|
| Accommodation | Security |
| Communications | Social |
| Finance &
Administration | Sports |
| Fundraising | Transportation |
| Medical | Volunteers |
| Public Relations | Others _____ |

2. How many days will you spend working at these Games? _____ days

3. Are you a friend or relative of any of the participants (athletes or officials), in the Games? Yes No

4. How much do you estimate you will spend during the Games on the following items?
(Please record only expenditures that you have made or will make as a result of the Games?)

Accommodation	\$_____	Groceries	\$_____
Automobile and Gas	\$_____	Restaurant Meals	\$_____
Concession	\$_____	Recreation/Entertainment	\$_____
Gifts and Souvenirs	\$_____	Retail Shopping	\$_____
Local Transportation	\$_____	Other _____	\$_____
		Total	\$_____

Thank you for your assistance.

APPENDIX

APPENDIX B

INTERVIEWER INSTRUCTIONS

**KITIMAT 2004 NORTHERN BC WINTER GAMES
ECONOMIC IMPACT SURVEY
INTERVIEWER INSTRUCTIONS**

Introduction and Background

Kitimat is hosting the 2004 Northern BC Winter Games during the first weekend in February. The Games include 17 events and will likely have a participant total of approximately 1,500 persons. The event will also involve several hundred local volunteers, and several hundred spectators.

The existence of the Games will have significant economic impact on the Kitimat area, based on spending - by the local Games Societies, by BC Games, and particularly by athletes, spectators and volunteers. Periodically in the past, host communities have conducted surveys to estimate the local economic effects of the Games.

Objectives

The overall purpose of the project is to analyze and calculate the economic impact of the Northern BC Winter Games on the Kitimat area. Economic impact will be measured by direct spending in the local area. Impacts will be estimated by the local spending of the:

- Kitimat Host Society
- BC Games
- **athletes/participants**
- **spectators**
- **volunteers**

The survey you are involved with focuses on the latter three categories.

Questionnaires

Spending by participants, spectators and volunteers are the focus of this project. Separate questionnaires have been prepared for each of these categories. Each is one page in length, and can be completed in from two to three minutes.

The intent of these forms is to conduct a sample survey, which will provide information on total spending generated by the Games. Efficient interviews and accurate completion of the questionnaires are crucial to completing this survey effectively.

APPENDIX

Sample Sizes

The following numbers of questionnaires are targeted for the three categories:

- Participants 150 - 200
- Spectators 150 - 200
- Volunteers 100 - 150

Sports/Activities and Venues

The following sports/activities are included in these Games, with estimated participation and venue locations.

Sport/Activity	Athletes	Others	Venue Location
Badminton	96		St. Anthony's Elementary School
Basketball	84		Kitamaat Village Rec. Centre
Bowling	84		KD Lanes
Bridge	20		Riverlodge Rec. Centre Activity Room
Carpet Bowling	24		Nechako Elementary School
Curling	96		Hirsch Creek Golf & Winter Club
Figure Skating	128		Tamitik Ice Rink
Gymnastics	175		Mt. Elizabeth Secondary School
Hockey (Pee Wee)	160		Kitimat Ice Rink?
Hockey (Women)	160		Tamitik Ice Rink?
Indoor Soccer	210		Kildala Elementary School
Judo	84		Roy Wilcox Elementary School
Karate	132		Mt. Elizabeth Secondary (Cafeteria)
Special Olympics	30		Kitamaat Village Rec. Centre
Swimming*	112		Tamitik Swimming Pool
Tae Kwon Do	84		Riverlodge Rec. Centre
Volleyball	112		Mt. Elizabeth Secondary School (Small Gym)
Wrestling	150		Riverlodge Rec. Centre

Notes:

1. Others column includes coaches, managers, officials and chaperones but the tally above includes these categories plus athletes.
2. The source for the information was the Kitimat 2004 Northern BC Games website (Oct.26/03)
3. * Includes Special Olympics and Disabled

Interview Stints

APPENDIX

Interviews of a sample of spectators, participants and volunteers should be completed at most venues. The key focus will be on the more popular sports and the most convenient venues.

Respondent Selection

It is important that the survey be as random as possible so the sample can accurately reflect the total number of attendees. However, actual respondent selection will depend on the number of people at the venue and their agreement to participate.

In busy venues, locate yourself in an area away from the actual event. In less busy venues, approach persons until the venue quota is complete. Attempt to approach a mix of males and females, and persons of different ages.

Interview Procedures

Participation in the survey is voluntary and each individual survey response will be anonymous. Approach a selected respondent, introduce yourself and the survey project, and ask if they would be willing to answer a few questions about their visit to the Games. The following introduction works well.

Good morning/afternoon. My name is _____. We are conducting a survey for the 2000 Winter Games. Would you mind answering a few questions?

Go through the questionnaire asking each question. The questions with small boxes (), should be “checked” as applicable, while a question with a line (_____) requires a written response. When the interview is over, thank the person for their assistance and go on the next respondent. Note that if it is convenient, the respondent could fill the form out themselves. You could give the respondent the option.

Questionnaire Drop Off

Put the completed questionnaires from your interview stint in an envelope, and drop them off at the Games office (to the attention of David Hall).

APPENDIX

February 2004

To Whom It May Concern:

This letter will introduce _____ as a volunteer representative of the 2004 Kitimat Northern BC Winter Games. A research firm, the Economic Planning Group, has been hired by the Northern BC Games Society to analyze the economic impact of the Games on the community.

The questions you are being asked will form part of an information base from which the analysts will estimate the overall economic impact of the 2004 Kitimat Northern BC Winter Games. Your participation is completely voluntary, and your responses will be confidential and be used for analytical purposes only.

Your cooperation is very much appreciated and we thank you for your assistance. Should you have any questions, please contact the Games office at 632-9100.

Yours Sincerely
Economic Planning Group

G. David Hall
Partner